

SEQUENCE LISTING**(1) GENERAL INFORMATION****(i) APPLICANTS:**

(A) NAME: Advanced Technologies (Cambridge) Limited
(B) STREET: Globe House, 1 Water Street
(C) CITY: London
(E) COUNTRY: England
(F) POSTAL CODE: WC2R 3LA

(ii) TITLE OF INVENTION: Modification of Plant Fibres

(iii) NUMBER OF SEQUENCES: 8

(iv) CORRESPONDENCE ADDRESS:

(A) ADDRESSEE: British American Tobacco (Investments) Limited
(B) STREET: Regents Park Road
(C) CITY: Southampton
(D) STATE: Hampshire
(E) COUNTRY: England
(F) POSTAL CODE: SO15 8TL

(v) COMPUTER READABLE FORM:

(A) MEDIUM TYPE: Diskette 3.50 inch
(B) COMPUTER: Viglen P5/75
(C) OPERATING SYSTEM: MS-DOS Windows 95
(D) SOFTWARE: Microsoft Word 97

(vi) CURRENT APPLICATION DATA:

(A) APPLICATION NUMBER: Not yet known
(C) CLASSIFICATION: Not yet known

(viii) ATTORNEY/AGENT INFORMATION:

(A) NAME: Mrs. M.R. Walford/ Mr. K.J.H. MacLean
(C) REFERENCE: RD-ATC-19

(ix) TELECOMMUNICATION INFORMATION:

(A) TELEPHONE: 01703 777155
(B) TELEFAX: 01703 779856

(i) SEQUENCE CHARACTERISTICS

(i) SEQUENCE CHARACTERISTICS

~~488 bps
Nucleic acid
Double
Linear~~

cDNA

(vi) ORIGINAL SOURCE:

Eucalyptus grandis

SEQ. ID. NO:1:

ATGGGGGGGG	CTTGTGGGTA	TGGCAACCTG	TACAGCCAAG	GCTATGGCAC	50
CAACACTGCA	GCTTTGAGCA	CTGCCCTGTT	CAACAATGGC	CTGAGCTGCG	100
GGGCATGTTA	CGAGATGCGG	TGCAACGACG	ACCCCAGGIG	GTGCCCTCCCG	150
GGGACCATCA	TGGTCACGGC	AACCAACTTT	TGCCCTCCCA	ACTTGGCCCT	200
CTCCAACGAC	AATTGCGGCT	GGTGCAACCC	CCCTCTCCAG	CACCTTGATA	250
TGGCCGAGCC	TGCTTTCCTG	CAGATTGCCC	AGTACAAAGC	TGGGATTGTC	300
CAGGTTTCCT	TCAGAAGGGT	TCCGTGTGTG	AAGAAAGGAG	GGGTAAGGTT	350
CACCATCAAT	GGGCACTCCT	ACTTCAACTT	GGTGCTGATC	ACCAACGTGG	400
GAGGTGCTGG	TGATGTCCAT	TCCGTTTCCA	TCAAGGGCTC	GAGGACTGGT	450
TGGCAAGCCA	TGTCAAGGAA	CTGGGGCAAA	AACTGGCA		488

SEQ. ID. NO:2:

ATGGGGGGGG	CATGCGGGTA	TGGCAACCTG	TACAGCCAAG	GCTATGGCAC	50
CAACACTGCA	GCTTTGAGCA	CTGCGCTGNT	CAACAATGGC	CTGAGCTGCG	100
GGGCATGTTA	CGAGATGCGG	TGZAACGACG	ACCCCAGGTG	GTGCGTCCCG	150
GGGACCATCA	TGGTCACGGC	AACCAACTTT	TGCCCCCCTA	ACTTGGCCCT	200
CTCCAACGAC	AATGGGGGCT	GGTGCAACCC	CCCTCTCCAG	CAC TTCGATA	250
TGGCCGAGCC	TGCTTCTCTG	CAGATTGCC	AGTACAAAGC	TGGGATTGTC	300
CCGTTTTCCT	TCAGAAGGGT	TCGTGTGTG	AAGAAAGGAG	GGGTAAGGTT	350
CACCATCAAT	GGGCACTCCT	ACFTCAGCTG	TGGTGCTGAT	CACCAACGTG	400
GGAGGTGCTG	GTGATGTCCA	TTCCGTTTCC	ATCAAGAGCT	CGAGGACTGG	450
TTGGCAAGCC	ATGTCAAGGA	ATTGA			475

(i) **SEQUENCE CHARACTERISTICS:**

- | | | | | | |
|------------|------------|------------|------------|-------------|-----|
| ATGGGGGGGG | CATGTGGTTA | CGGGGACCTT | CACAGGGCCA | CCTATGGCAA | 50 |
| GTACAGTGCC | GGCTTGAGCT | CGATGCTGTT | CAACAGAGGG | AGTACCTGCG | 100 |
| GGGCTTGCTT | CGAGCTCCGG | TGGTTCGACC | ACATTTTGIG | GTGGCTCCCT | 150 |
| GGTAGCCCGT | CGGTGATCCT | CACCGCCACC | GACTTCTGCC | CTCCGAACCTA | 200 |
| CGGGCTCGCG | GCAGATTACG | GCGGGTGGTG | CAACTTCCCG | CAGGAGCACT | 250 |
| TCGAGATGTC | GGAGGCCGCC | TTCGCCGAGA | TTGCGGTGCG | AAGGGCTGAT | 300 |
| GTGGTGCTTA | TCCAGTACAG | GAGGGTGAAC | TGTCTGAGAA | GCGTGGTCT | 350 |
| GAGATTACAA | TTGAGCGGAA | ACTCTCACTT | CTTTCAGGTC | TTGGTGACGA | 400 |
| ATGTAGGCCT | AGATGGGGAG | GTGATTGCCA | TGAAAATGAA | GGATCGAAA | 450 |
| ACAGGGTGCA | TACCGATGGC | AAGAACTGG | GGCAAAAAC | GGCA | 494 |

ATGGGTTGCC	ACCGGGTCTT	TGATCCTTTG	ATGGCCACGG	AGTGCCACATC	50
CCCTGCTCCG	CCGACATTGG	TTATGAGCAC	GAGGTTGAAA	TAAGAATGGC	100
CGTTGACGGT	GAACCGGATC	CCTCGCTTTC	TCCTGCACCT	CACTCTTGGG	150
TAGGCCACCG	GGACGATCCC	GGCCCTGTAC	TGCGCAATGT	GCTGGAAGAC	200
CGGCTGGGAG	AGGTGGAAT	GGAGTTGAGG	AGGGTCGCAC	CACCCCTCTG	250
GAGGGCAGAA	GTGTGTCGCC	GTGACCACAA	TGGCGCCCGG	GAGGCACCAC	300
TGCGGGTCGT	TCACGCACCG	GAGCTCAAAG	CACGCGCCGC	AGCTCAGCCC	350
ATTGTTGAAC	AATGCAGTGC	TCAGTGCAGC	TGTGTTTGIG	CCGTACCCCTT	400
GGCTGTATAG	ATTCCCATAA	CCACACGCCC	CCCCCAT		437

(i) SEQUENCE CHARACTERISTICS:

437 base pairs

Nucleic acid

Double

~~Linear~~

cDNA

Eucalyptus grandis

Eucalyptus grandis

SEQ. ID. No. 5

ATGGGTTGCC ACCGGGTCTT TGATCTTTG ATGGCCACGG AGTGCACATC	50
CCCTGCTCCG CCGACATTGG TTATGAGCAC GAGGTTGAAA TAAGAATGGC	100
CGTTGACGGT GAACCGGATC CCTCCGCTTC TCCTGCACCT CACTCTTCGG	150
TAGGCCACAG GGACGATCCC GGCCCTGTAC TGGCAATGT GCTGGAAGAC	200
AGGCTGGGAG AGGTGAAAT GGAGTTGAGG AGGGTGCAC CACCCCTCTG	250
GAGGGCAGAA GTTGGTGGCC GTGACAACAA TGGCGCCCG GAGGCACCAC	300
TGCGGGTCGT TCACGCACCG GAGCTCAAAG CACGCGCGC AGCTCAGCCC	350
ATTGTTGAAC AATGCAGTGC TCAGTGCAGC TGTGTTTGIG CCGTACCCCT	400
GGCTGTATAG ATTCCCATAA CCACACGCCC CCCCCAT	437

(2) INFORMATION FOR SEQ. ID. NO:6

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 488 base pairs
 (B) TYPE: Nucleic acid
 (C) STRANDEDNESS: Double
 (D) TOPOLOGY: Linear

(ii) MOLECULE TYPE:

cDNA

(vi) ORIGINAL SOURCE:

(A) ORGANISM: Eucalyptus grandis

(xi) SEQUENCE DESCRIPTION:

SEQ. ID. No. 6

CCTTGACATG GTCTGCCACC TTGTCCGCGA ACCCTTCACG GCGACCGAGT 50
 TGACGTTGCC TCGCCCGCCG ACGTTTGTGA CGAGGACGAG CTTGAAGTAT 100
 GAGTTGCCGT TGATGGTGAA CCGGATGCCT CCTCTCCTCC TGCACGTCAC 150
 CCTCCTGTAC GCAACGTGGA CGATGCCGGC TCGGTACTTG GCAATGTGCT 200
 GGAAGACGGG CTGGGAGATG TCGAAGTGGT GTTGGGGCGG GTTGACCAT 250
 CCGCCGGCGT TGTTTGGGAG GCGTTTGTTC GCGGGCAGA AGTTTGTGGC 300
 GGTGACGACG ATGGAGCCGC CCAGGCACCA CTTTCCGTCC TTCACGCACC 350
 GGATCTCGAA GCACGACCCC CAGCTCAGCC CGTTTTTTAA CAGCGCCGTG 400
 CTCAGCGCCG CCGTGTTCGT ACCGTAGCCC TGGCTGTACA GGTTGCCG 448

(2) INFORMATION FOR SEQ. ID. NO:7**(i) SEQUENCE CHARACTERISTICS:**

(A) LENGTH:	19 nucleotides
(B) TYPE	Nucleic acid
(C) STRANDEDNESS:	Single
(D) TOPOLOGY:	Linear

(ii) MOLECULE TYPE:	Synthetic DNA
----------------------------	---------------

(xi) SEQUENCE DESCRIPTION:	SEQ. ID. No. 7
-----------------------------------	----------------

ATGGIGGIGC NTGTGGNTA

19

Key I = Inosine

N = A, G, T, or C

(2) INFORMATION FOR SEQ. ID. NO:8**(i) SEQUENCE CHARACTERISTICS:**

(A) LENGTH:	20 nucleotides
(B) TYPE	Nucleic acid
(C) STRANDEDNESS:	Single
(D) TOPOLOGY:	Linear

(ii) MOLECULE TYPE:	Synthetic DNA
----------------------------	---------------

(xi) SEQUENCE DESCRIPTION:	SEQ. ID. No. 8
-----------------------------------	----------------

TGCCARTTYT GNCCCCARTT

20

Key R = A or G

Y = T or C

N = A, G, T or C

1509200 6490000